AMENDMENTS TO THE CLAIMS

Please amend the claims as folllows:

LISTING OF CLAIMS:

1. (Currently Amended) A ~~M~~method for controlling the peak power of a filtered signal in a single carrier data transmission system, the method comprising the steps of receiving a digital sequence (13) from a data source; generating a new digital sequence ($a(k)$); shaping filtering (34) the new digital sequence ($a(k)$) and producing a filtered digital sequence ($y(k)$), characterized in that the step of generating a new digital sequence ($a(k)$) comprises the steps of:

encoding data ~~by an algebraic error correcting code (28)~~using a BCH (N,K) code; and

performing a bit modification (30) by deliberately adding errors in such a way that the peak power of the filter signal affected by the deliberately introduced errors is lower than the peak power of the signal unaffected by errors.

2. (Currently Amended) A ~~M~~method according to claim 1, characterized by the step of cancelling the deliberately added errors at the receive side by adopting proper algebraic decoding techniques.

3. (Currently Amended) A ~~M~~method according to claim 1, characterized in that ~~the step of generating a new digital sequence ($a(k)$)~~said encoding step comprises the step of encoding by ~~an algebraic ($c(N,K)$)~~said BCH (N,K) code the most significant bits (MSB) of the constellation symbol, the less ~~significative~~significant bits (LSB) being sent directly to a mapper.

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4. (Canceled)

5. (Currently Amended) A ~~C~~circuit for controlling the peak power of a filtered signal in a single carrier data transmission system, the circuit comprising means for receiving a digital sequence (13) from a data source; means for generating a new digital sequence ($a(k)$); a shaping filter (34) for filtering the new digital sequence ($a(k)$) and producing a filtered digital sequence ($y(k)$), characterized in that the means for generating a new digital sequence ($a(k)$) comprise:

an encoder (28) for encoding data ~~by an algebraic error correcting code~~ using a BCH (N,K) code; and

means (30) for performing a bit modification by deliberately adding errors in such a way that the peak power of the filter signal affected by the deliberately introduced errors is lower than the peak power of the signal unaffected by errors.

6. (Currently Amended) A ~~C~~circuit according to claim 5, characterized in that the encoder (28) encodes, by ~~an algebraic ($c(N,K)$) code~~said BCH (N,K) code, the most significant bits (MSB) of the constellation symbol, the less ~~significative~~significant bits (LSB) being sent directly to a mapper.

7. (Canceled)

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